TITLE 458, NEBRASKA ADMINISTRATIVE CODE, CHAPTERS 1-13

NEBRASKA DEPARTMENT OF NATURAL RESOURCES

RULES FOR THE SAFETY OF DAMS AND RESERVOIRS

NEBRASKA DEPARTMENT OF NATURAL RESOURCES
TITLE 458 - DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

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TITLE 458 - DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

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- Title 458 NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS
- Chapter 1 DEFINITIONS APPLICABLE TO TITLE 458
- <u>001</u> For purposes of Title 458 rules, the following definitions shall apply:
 - <u>001.01</u> Abandonment means the process of rendering a dam incapable of impounding by (1) dewatering and filling the reservoir created by such dam with solid materials and (2) creating a stable watercourse around the site.
 - $\underline{001.02}$ Adverse consequences means the negative impacts that may occur upstream, downstream, or at locations remote from the dam, including but not limited to, loss of human life, economic loss including property damage and lifeline disruption.
 - $\underline{001.03}$ Alterations means alterations to an existing dam that directly affect the safety of the dam or reservoir, as determined by the Department, but do not include maintenance and repair of the dam to retain its initial structural integrity.
 - $\underline{001.04}$ Application includes an application form, plans and specifications.
 - 001.05 Application approval means authorization in writing issued by the Department to an owner who has applied to the Department for permission to construct, reconstruct, enlarge, alter, breach, remove, or abandon a dam and which specifies the conditions or limitations under which work is to be performed by the owner or under which approval is granted.

- <u>001.06</u> Appurtenant works include, but are not limited to: structures such as spillways, either in or separate from the dam; the reservoir and its rim; low-level outlet works; and water conduits including, but not limited to, tunnels, pipelines, or penstocks, either through the dam or its abutments.
- $\underline{001.07}$ Breach means partial removal of a dam creating a channel through the dam to the natural bed elevation of the stream.
- $\underline{001.08}$ Consulting Board means board appointed by the Department under the provisions of $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\text{8}}$ 46-1645.
- 001.09 Dam means any artificial barrier, including appurtenant works, with the ability to impound water, wastewater, or liquid-borne materials and which (a) is twenty-five feet or more in height from the natural bed of the stream or watercourse measured at the downstream toe of the barrier, or from the lowest elevation of the outside limit of the barrier if it is not across a stream channel or watercourse, to the maximum storage elevation or (b) has an impounding capacity at maximum storage elevation of fifty acre-feet or more, except that any barrier described in this subsection which is not in excess of six feet in height or which has an impounding capacity at maximum storage elevation of not greater than fifteen acre-feet shall be exempt, unless such barrier, due to its location or other physical characteristics, is classified as a high hazard potential dam. Dam does not include: obstruction in a canal used to raise or lower water; (2) a fill or structure for highway or railroad use, but if such structure serves, either primarily or secondarily, additional purposes commonly associated with dams it shall

be subject to review by the department; (3) canals, including the diversion structure, and levees; or (4) water storage or evaporation ponds regulated by the United States Nuclear Regulatory Commission.

- 001.10 Days, for purposes of establishing deadlines, means calendar days, including Sundays and holidays.
- <u>001.11</u> Department means the Department of Natural Resources.
- $\underline{001.12}$ Diversion dam means dam constructed solely for the purpose of raising water to divert it into a canal. The height of the dam must be limited such that it provides only this function and does not create unnecessary storage.
- <u>001.13</u> Engineer means a professional engineer licensed under the Engineers and Architects Regulation Act who (1) is competent in areas related to dam investigation, design, construction, and operation for the type of dam being investigated, designed, constructed, or operated, (2) has at least four years of relevant experience in investigation, design, construction, reconstruction, enlargement, alteration, breach, removal, or abandonment of dams, and (3) understands adverse consequences and dam failures.
- 001.14 Enlargement means any change in or addition to an existing dam which raises or may raise the normal storage elevation of the water impounded by the dam.
- $\underline{001.15}$ Hazard potential classification means classification of dams according to the degree of incremental adverse consequences of a failure or misoperation of a dam but does not reflect on the current

condition of a dam, including but not limited to, safety, structural integrity, or flood routing capacity.

- <u>001.16</u> High hazard potential means a hazard potential classification such that failure or misoperation of the dam resulting in loss of human life is probable.
- $\underline{001.17}$ Incremental means the difference in impacts that would occur due to failure or misoperation of the dam over the impacts that would occur without failure or misoperation of the dam.
- 001.18 Landowner means person or persons with recorded title to land where dam and reservoir are or will be located.
- 001.19 Low hazard potential means a hazard potential classification such that failure or misoperation of the dam would result in no probable loss of human life and in low economic loss.
- 001.20 Maximum storage means the reservoir storage capacity between the top of dam elevation, or the maximum routed elevation of the probable maximum flood if lower than the top of dam elevation, and the lowest downstream toe or outside limit elevation of the dam.
- 001.21 Minimal hazard potential means a hazard potential classification such that failure or misoperation of the dam would likely result in no economic loss beyond the cost of the structure itself and losses principally limited to the owner's property.
- <u>001.22</u> Normal storage means the reservoir storage capacity, excluding flood storage and freeboard allowances.

- <u>001.23</u> Owner includes any of the following who or which owns, controls, manages, or proposes to construct, reconstruct, enlarge, alter, breach, remove, or abandon a dam: (1) The United States Government and its departments, agencies, and bureaus; (2) the state and its departments, institutions, agencies, and political subdivisions; (3) a municipal or quasi-municipal corporation; (4) a public utility; (5) a district; (6) a person; (7) a duly authorized agent, lessee, or trustee of any person or entity listed in this section; and (8) a receiver or trustee appointed by a court for any person or entity listed in this section.
- 001.24 Person means any individual, partnership, limited liability company, association, public or private corporation, trustee, receiver, assignee, agent, municipality, other political subdivision, public agency, or other legal entity or any officer or governing or managing body of any public or private corporation, municipality, other political subdivision, public agency, or other legal entity.
- $\underline{001.25}$ Plan or plans mean engineering drawings, design reports, hazard classification studies, geotechnical reports, and other studies as required.
- <u>001.26</u> Probable means likely to occur and reasonably expected.
- <u>001.27</u> Probable maximum flood means the most severe flood that is considered probable at a site.
- <u>001.28</u> Reconstruction means partial or complete removal and replacement of an existing dam.

- <u>001.29</u> Removal means complete elimination of the dam embankment or structure to restore the approximate original topographic contours of the site.
- <u>001.30</u> Reservoir means any basin which contains or will contain impounded water, wastewater, or liquid-borne materials by virtue of such water, wastewater, or liquid-borne materials having been impounded by a dam.
- $\underline{001.31}$ Safety of Dams and Reservoirs Act means $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. Stat. Sections 46-1601 to 46-1670.
- $\underline{001.32}$ Significant hazard potential means hazard potential classification such that failure or misoperation of the dam would result in no probable loss of human life but could result in major economic loss, environmental damage, or disruption of lifeline facilities.
- $\underline{001.33}$ Storage elevation means the elevation of the reservoir surface associated with a level of impoundment, such as maximum storage or normal storage.
- $\overline{001.34}$ Top of dam elevation means the maximum design elevation for the top of the dam, including design freeboard allowances but excluding any allowance for settlement due to consolidation of the foundation and embankment.

STATUTORY AUTHORITY: Neb. Rev. Stat. §§ 46-1601 to 46-1670 Neb. Rev. Stat. § 61-206

- Title 458 NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS
- Chapter 2 DOCUMENTATION OF SIGNATURES
- $\underline{001}$ The following documentation must be submitted when applicable with any document required to be filed and signed under the provisions of these rules.
 - <u>001.01</u> Persons signing as landowner shall submit a copy of the deed or other document conveying ownership of all lands under the project.
 - $\underline{001.02}$ Persons signing as owners shall submit the trust agreement, lease, memorandum of agreement, deed, or other document showing sufficient interest to operate and maintain the dam or reservoir.
 - $\underline{001.03}$ If an owner or landowner is a trust, they shall submit a copy of the trust agreement and the name of the trust and the names of all the trustees.
 - <u>001.04</u> Persons signing as attorney-in-fact (power of attorney) shall submit a copy of the document granting power of attorney.
 - $\underline{001.05}$ Persons signing as the personal representative shall submit a copy of the document appointing the person personal representative.
 - 001.06 Persons signing as an agent of the owner shall submit a copy of the document granting him or her authority to act as the owner's agent.
- STATUTORY AUTHORITY: Neb. Rev. Stat. §§ 46-1601 to 46-1670 Neb. Rev. Stat. § 61-206

Title 458 - NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

Chapter 3 - FEES

- $\underline{001}$ The filing fee for an application for approval of the construction, enlargement, reconstruction, alteration, abandonment, breach, or removal of a dam shall be determined by measuring the height of the dam from the natural bed of the stream or watercourse at the downstream toe of the barrier, or from the lowest elevation of the outside limit of the barrier, if it is not across a stream channel or watercourse, to the maximum storage elevation.
 - $\underline{001.01}$ The fee shall be one-hundred and fifty dollars (\$150.00) for dams less than twenty-five feet in height.
 - $\underline{001.02}$ The fee shall be two-hundred and fifty dollars (\$250.00) for dams twenty-five feet in height to not more than fifty feet in height.
 - $\underline{001.03}$ The fee shall be three-hundred and fifty dollars (\$350.00) for dams in excess of fifty feet in height.
- $\underline{002}$ The amount of the filing fee for the approval of plans of a previously constructed dam is the same as the amount for construction of a new dam of the same size.
- $\underline{003}$ The filing fee for a request for consulting board review is \$10.

 $\underline{004}$ The filing fee for a request for a waiver to install outlet works is \$10.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1655

Neb. Rev. Stat. § 33-105(8) Neb. Rev. Stat. § 61-206

Title 458 - NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

Chapter 4 - REQUIREMENTS FOR APPLICATION APPROVAL

- <u>001</u> <u>Applications</u>. Any person intending to construct, enlarge, reconstruct, alter, abandon, breach, or remove a dam must file an application and obtain application approval prior to construction, enlargement, reconstruction, alteration, abandonment, breach or removal of the dam. The application must be accompanied by the filing fee.
 - <u>001.01</u> The applicant's engineer is required to meet with the Department in a pre-design conference prior to submission of an application for a significant or high hazard class dam.
 - $\underline{001.02}$ Applications must be made on a form provided by the Department. Plans and specifications must be submitted with the application form.
 - $\underline{001.03}$ If the proposed project will also require a surface water storage appropriation under $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\text{S}}$ 46-241, the application may be submitted with the application for a surface water storage appropriation or anytime within six months of the filing of the application for the surface water appropriation. If the application is not filed within the six month period the application for a surface water storage appropriation shall be dismissed.
 - 001.04 If the owner of the dam is not the landowner of the land where the dam and reservoir will be located, the application shall be accompanied by documentary evidence describing the relationship and responsibilities of the owner of the dam and the owner of the land as it relates to

the dam and reservoir. Acceptable documentary evidence includes but is not limited to leases, contracts, memoranda of agreements, easements, options to buy or authority to condemn under existing laws for purposes of construction of a dam and reservoir. The application will not be approved if the owner of the dam does not have sufficient legal authority to construct, operate, and maintain the dam and reservoir for its anticipated design life or sufficient authority to comply with any order the Department issues regarding the safety of the dam or operation of the dam and reservoir.

- $\underline{001.05}$ The application must be signed by all the owners of the dam and reservoir.
- <u>001.06</u> The application shall include the name, mailing address, electronic address and telephone number of the person or persons responsible for maintaining and operating the dam and reservoir. Each person's responsibilities shall be described in sufficient detail to provide the Department with an understanding of who is responsible for each aspect of the dam's maintenance and operation along with accurate information about how each person can be contacted. The application must include copies of all contracts or other agreements between the applicant and the person responsible for operation and/or maintenance of the dam and reservoir.
- $\underline{001.07}$ Dams are required to have an outlet for releasing water in compliance with $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. § 46-241(5). If the dam is designed without an outlet, a request for a waiver as described in Department rule Title 458, Chapter 6 must accompany the application for approval.
- $\underline{001.08}$ The Department will return applications that are incomplete or incorrectly filled out to the applicant. The

corrected or completed application must be returned to the Department within ninety days or the application will be dismissed. Any associated application for a surface water appropriation will also be dismissed. Fees will not be refunded.

002 Plans and Specifications.

- <u>002.01</u> An engineer shall prepare all plans and specifications assisted by qualified engineering geologist, geotechnical engineers, geologists, and other specialists as necessary. Plans and specifications submitted to the Department shall be as detailed as they would be for submission to contractors bidding on the work.
- 002.02 Detailed specifications or references to standard specifications for both materials and construction aspects shall accompany the plans. The specifications shall be those_currently acceptable and normally used by design and construction professionals. Material specifications are those specifications which will cover the materials proposed to be used. Construction specifications are those specifications describing how the work (construction, enlargement, reconstruction, alteration, abandonment, breach, or removal) is to be accomplished, the sequence of procedures to be followed, the limitations, and the desired results.
- <u>002.03</u> Plans for construction, enlargement, reconstruction, alteration, abandonment, breach, or removal of a dam shall conform to the following:
 - $\underline{002.03A}$ Be made on sheets with minimum dimensions of 11 inches by 17 inches and maximum dimensions of 22 inches by 34 inches and shall have adequate margins on all sides.

002.03B Be of such clarity and with distinct characters of such size as to retain clarity and resolution when reduced to 11 inches by 17 inches. Characters shall not be smaller than one-tenth inch on the 11 inches by 17 inches drawings and two-tenths inch on the 22 inches by 34 inches drawings.

002.04 Plans shall include the following information:

<u>002.04A</u> A map showing the outside limits of the reservoir water line at maximum storage elevation and at normal storage elevation, the dam location, the government subdivisions in which the dam and reservoir are located including the quarter section, section, township, range, and county; the location and name of any and all streams which are the source of water or on which the dam is located and, if applicable, the location of any pump or diversion facility used to provide water to the reservoir.

002.04B The latitude and longitude of the intersection of the dam centerline with the natural stream channel. Latitude and longitude must be referenced to the North American Datum of 1983.

 $\underline{002.04C}$ The course of the stream or watercourse and the drainage area boundary upstream from the proposed or existing dam.

<u>002.04D</u> The area, time of concentration and runoff curve number of the drainage basin.

<u>002.04E</u> The elevations, dimensions, materials, and maximum capacities of all spillways. Elevations shall

be referenced to the North American Vertical Datum of 1988.

<u>002.04F</u> All pertinent hydrologic and hydraulic data. For each design storm analyzed, indicate the following:

002.04F1 The design rainfall and runoff amount,

002.04F2 The recurrence interval,

002.04F3 The peak inflow into the reservoir,

 $\frac{002.04F4}{spillway}$. The maximum discharge from each

 $\underline{002.04F5}$ The peak reservoir elevation and flow velocity in the auxiliary spillway, and

 $\underline{002.04F6}$ The results of the auxiliary spillway stability analysis.

<u>002.04G</u> A topographic map of the dam site and the return area to the natural channel from all conduits and spillway(s). The map must be derived from on site or photogrammetric survey and show 2-foot contour intervals or less.

 $\underline{002.04 \text{H}}$ A topographic map of the reservoir within the reservoir area. The map must be derived from on site or photogrammetric survey and show 2-foot contour intervals or less.

<u>002.04I</u> A table showing the reservoir surface area and incremental and cumulative reservoir storage at 2-foot elevation intervals and at the crest elevation of

the drawdown, principal and auxiliary spillways, other outlets and the top of dam elevation.

 $\underline{002.04J}$ The cross sections listed below, with all elevations referred to in the cross sections referenced to the North American Vertical Datum of 1988 or an assumed benchmark.

002.04J1 The valley along the centerline of the dam showing the profile of the top of the dam and the original ground line;

002.04J2 A maximum cross section perpendicular to the dam centerline and other cross-sections or views to clarify construction details;

 $\underline{00204J3}$ Other cross-sections, profiles or plan views showing the location and elevations of the drawdown works, spillways and other components.

002.04K If there are multiple owners or there are easements appurtenant to the land where the dam and reservoir are located, a plan of survey showing the boundary line of each ownership and easement. The plan of survey shall include labels to indicate separate ownerships or easements. This drawing must agree with the information provided in the application described in Chapter 4.001.04 of these rules.

<u>002.04L</u> The certificate of the engineer responsible for design of the facility. Examples of engineer's certificates are available on the Department's web site. The engineer's certificate shall include a designation of the hazard classification for the dam. The certificate shall be on the first sheet of the drawings.

003 Emergency Action Plans.

 $\underline{003.01}$ An emergency action plan that meets the requirements of $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\text{S}}$ 46-1647 must be submitted with an application if the dam is classified as a high hazard dam. If the dam is classified as a significant hazard dam, the Department will notify the applicant if an emergency action plan is required and when the plan must be filed.

003.02 An emergency action plan shall include:

003.02A an emergency notification plan with
flowchart;

003.02B a statement of purpose;

003.02C a project description;

003.02D the plan for emergency detection, evaluation, and classification;

<u>003.02E</u> a chart identifying the general responsibilities of emergency personnel and their names and telephone numbers;

003.02F a preparedness plan;

<u>003.02G</u> inundation maps or other acceptable description of the inundated area;

003.02H appendices.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1651

Neb. Rev. Stat. § 46-1652 Neb. Rev. Stat. § 46-1653 Neb. Rev. Stat. § 61-206

- Title 458 NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS
- Chapter 5 REQUIREMENTS FOR DAMS CONSTRUCTED PRIOR TO SEPTEMBER 4, 2005, AND NOT PREVIOUSLY APPROVED BY THE DEPARTMENT.
- $\underline{001}$ This Chapter applies to all dams that were completed prior to September 4, 2005, but have not been approved by the Department.
- <u>002</u> <u>Applications</u>. Application must be made on a form provided by the Department. Plans and specifications for the dam must be submitted to the Department with the application form. The filing fee shall accompany the application.
 - $\underline{002.01}$ If a surface water appropriation is required for the storage reservoir in accordance with $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\text{S}}$ 46-241, the plans, specifications and application for approval shall be submitted at the same time as the application for a surface water appropriation.
 - 002.02 If the owner of the dam is not the landowner of the land where the dam and reservoir are, the application shall be accompanied by documentary evidence describing the relationship and responsibilities of the owner of the dam and the landowner. Acceptable documentary evidence includes but is not limited to leases, contracts, memoranda of agreement, or easements. The application will not be approved if the owner of the dam does not have sufficient legal authority to operate and maintain the dam and reservoir for its anticipated design life or sufficient authority to comply with any order the Department issues regarding the safety of the dam or operation of the dam and reservoir.
 - 002.03 The application form must be signed by all the owners of the dam and reservoir.

- <u>002.04</u> The application shall include the name, mailing address, electronic address and telephone number of the person or persons responsible for maintaining and operating the dam and reservoir. Each person's responsibility shall be described in sufficient detail to provide the Department a complete description of each person's duties and responsibilities and accurate information about how each person can be contacted. The application must include copies of all contracts or other agreements between the applicant and the person responsible for operation and/or maintenance of the dam and reservoir.
- $\underline{002.05}$ If the dam does not have an outlet for releasing water in compliance with $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\$}$ 46-241(5), a request for a waiver as described in Department rule Title 458, Chapter 6 must accompany the application for approval.
- 002.06 The Department will return applications that are incomplete or incorrectly filled out to the applicant. The corrected or completed application must be returned to the Department within ninety days. Failure to refile within 90 days will result in the forfeiture of the fees, and dismissal of the application. If applicable, the application for an associated surface water storage appropriation will also be dismissed.
- <u>003</u> <u>Plans</u>. All plans and specifications shall be prepared by an engineer, assisted by qualified engineering geologists, geotechnical engineers, geologists and other specialists as necessary. Plans and specifications shall be as detailed as they would be for submission to contractors bidding on work. Plans shall include:
 - $\underline{003.01}$ A topographic map of the reservoir area as determined by on-site or photogrammetric surveys with 2 foot contour intervals or less.
 - $\underline{003.02}$ A table showing the incremental and cumulative reservoir surface area and reservoir storage at 2-foot elevation intervals and at the crest elevation of the

drawdown, the principal and auxiliary spillways, other outlets and the top of dam elevation.

- <u>003.03</u> A map showing the outside limits of the reservoir water line at maximum storage elevation and at normal storage elevation, the dam location, the government subdivisions in which the dam and reservoir are located including the quarter section, section, township, range, and county; the location and name of any and all streams which are the source of water or on which the dam is located and, if applicable, the location of any pump or diversion facility used to provide water to the reservoir.
- $\underline{003.04}$ The height of the dam from the downstream toe of the dam to the maximum storage elevation.
- <u>003.05</u> The cross sections listed below. All elevations referred to in the cross sections must refer to the North American Vertical Datum of 1988 or an assumed benchmark.
 - <u>003.05A</u> The valley along the centerline of the dam showing the profile of the top of the dam and the original ground line;
 - $\frac{003.05B}{\text{dam}}$ A maximum cross section perpendicular to the dam centerline and other cross-sections or views to clarify construction details;
 - <u>003.05C</u> Other cross-sections, profiles or plan views showing the location and elevations of the drawdown works, spillways, and other components.
- <u>003.06</u> Elevations, dimensions, materials, and maximum capacities of all spillways.
- <u>003.07</u> If there are multiple owners or there are easements appurtenant to the land where the dam and reservoir are located, a plan of survey showing the boundary line of each ownership and easement. The plan of survey shall include labels to indicate separate ownerships or easements. This

drawing must agree with the information provided in the application described in Chapter 5.002.02 of these rules.

003.08 A statement, certified by an engineer, as to the hazard classification of the dam and whether it is subject to the Safety of Dams and Reservoirs Act.

004 Emergency Action Plans.

 $\underline{004.01}$ An emergency action plan that meets the requirements of $\underline{\text{Neb}}$. $\underline{\text{Rev}}$. $\underline{\text{Stat}}$. $\underline{\text{S}}$ 46-1647 must be submitted with an application if the dam is classified as a high hazard dam. If the dam is classified as a significant hazard dam, the Department will notify the applicant if an emergency action plan is required and when the plan must be filed.

004.02 An emergency action plan shall include:

 $\underline{004.02A}$ an emergency notification plan with flowchart;

004.02B a statement of purpose;

004.02C a project description;

004.02D the plan for emergency detection, evaluation, and classification;

<u>004.02E</u> a chart identifying the general responsibilities of emergency personnel and their names and telephone numbers;

004.02F a preparedness plan;

 $\frac{004.02G}{\text{description of the inundated area}}$

004.02H appendices.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-241 Neb. Rev. Stat. § 46-1611

Neb. Rev. Stat. § 46-1651 Neb. Rev. Stat. § 46-1652 Neb. Rev. Stat. § 46-1653

<u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 46-1670 <u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 61-206

Title 458 - NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

Chapter 6 - OUTLET WORKS

<u>001</u> <u>REQUIREMENT</u>. In order to protect the rights of persons downstream and to facilitate compliance with interstate compacts, decrees and agreements, all dams, including all structures subject to Chapter 4 and 5 of these rules, are required to have an outlet works. The Department may waive the requirement for an outlet works if the owner of the dam has an acceptable alternative method for passing water when ordered to do so. A request for a waiver must be filed on a form provided by the Department and must describe why an outlet works is not necessary, and how the owner of the dam will meet the requirements of <u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 46-241(5) and be accompanied by the filing fee. The Department will not allow waivers for dams associated with public roadways, or for dams required to have emergency action plans.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-241

<u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 61-206

Neb. Rev. Stat. § 33-105(8)

Title 458 - NEBRASKA DEPARTMENT OF NATURAL RESOURCES RULES FOR SAFETY OF DAMS AND RESERVOIRS

Chapter 7 - CHANGE OF OWNERSHIP

- $\underline{001}$ The owner of any dam shall notify the Department of any change in the ownership of the dam or reservoir or of the land where the dam and reservoir are located. The notification shall be made on a form provided by the Department. All forms shall include the following:
 - 001.01 For those instances where the ownership of the land has changed, a copy of the deed or other document transferring ownership of the land occupied by the dam and reservoir shall be submitted with the form.
 - <u>001.02</u> For those instances where the ownership of the dam has changed, and the owner of the dam is not the owner of the land where the dam and reservoir are located, a copy of the trust agreement, lease, memorandum of agreement, deed, or other document transferring ownership of the dam and describing the responsibilities and authorities of the new owner shall be submitted with the form.
 - <u>001.03</u> If the dam and reservoir are located on a tract not under one contiguous ownership, or there are holders of easements on the land where the dam and reservoir are located, the owner of the dam shall submit with the change of ownership form, a copy of an agreement, signed by all owners and applicable holders of easements, describing: (1) who is responsible for the operation of the dam and reservoir, including any releases from the reservoir; (2) who is responsible for maintenance of the structure; and (3) for reservoirs that are permitted under the provisions of <u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 46-241, what amount of the appropriation to impound is to be appurtenant to each owner's property and what is the basis for the

distribution. Such agreements are not required when the deed or document transferring ownership or an easement describes such information and such document is submitted with the form.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1641

Neb. Rev. Stat. § 61-206 Neb. Rev. Stat. § 76-2,124

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Chapter 8 - CHANGE OF ADDRESS

 $\underline{001}$ The owner of any dam shall promptly notify the Department in writing of any change of address of the owner or person responsible for maintenance or operation of the dam or reservoir.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1641

 $\frac{\text{Neb.}}{\text{Neb.}} \cdot \frac{\text{Rev.}}{\text{Rev.}} \cdot \frac{\text{Stat.}}{\text{Stat.}} \quad \S \quad 46-1651$

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Chapter 9 - NOTICE OF CONSTRUCTION, RECONSTRUCTION, ENLARGEMENT, ALTERATION, BREACH, REMOVAL, OR ABANDONMENT

<u>001</u> The owner of a dam shall provide written notice to the Department at least ten days before construction, reconstruction, enlargement, alteration, breach, removal, or abandonment of the dam is to begin. Notice shall be given immediately after foundation preparation and principal spillway construction and at least two days prior to backfilling the spillway. Notices must be in writing and addressed to the Chief Engineer or the Construction Inspector of the Department's Dam Safety Section. Notices may be delivered to the Department by mail, facsimile or electronic mail.

 $\underline{002}$. This rule does not apply to dams associated with livestock waste control facilities.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1654(5)

<u>Neb</u>. <u>Rev</u>. <u>Stat</u>. § 46-1651

Neb. Rev. Stat. § 61-206

Neb. Rev. Stat. § 33-105(8)

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Chapter 10 - COMPLETION CERTIFICATION

- <u>ool</u> The owner of a dam shall file with the Department a completion certification after completion of a new or reconstructed dam and reservoir or enlargement of a dam and reservoir, or the alteration of any dam. The completion certification shall be on a form provided by the Department accompanied by supplementary drawings or descriptive matter signed and sealed by the engineer, showing or describing the work as actually completed. The drawings and descriptive matter shall substantially conform to the requirements for plans and specifications in Chapter 4 of these regulations. If the construction, reconstruction, enlargement or alteration of the dam and reservoir meet the requirements of the Safety of Dams and Reservoirs Act and these regulations, the Department will issue an approval to operate to the owner.
- <u>002</u> The owner of a dam shall file with the Department a completion certification after completion of the removal, breach, or abandonment of the dam. The completion certification shall be made on a form provided by the Department accompanied by supplementary drawing or descriptive matter, signed and sealed by the engineer responsible for the work, showing or describing the work as actually completed. The drawings or descriptive matter shall substantially conform to the requirements for plans and specifications in Chapter 4 of these regulations.
- $\underline{003}$ For dams classified as high hazard, and for those significant hazard dams that are required to have an emergency action plan, the owner of the dam shall file a report of initial fill signed and sealed by the engineer. The report shall be

filed by the first May 30 after the approval to operate was issued. The report shall include information on the initial seepage flows, information regarding the integrity of the dam, and the elevations and quantity of water impounded. The owner shall continue to file a report of initial fill by May 30 of each year until the reservoir has filled to the normal permitted storage capacity. After the reservoir has filled to its normal permitted storage capacity, the owner shall submit the report of final fill. No further reports shall be required unless the Department orders the owner to submit a report to address a safety concern.

 STATUTORY AUTHORITY:
 Neb.
 Rev.
 Stat.
 \$ 46-1651

 Neb.
 Rev.
 Stat.
 \$ 46-1657

 Neb.
 Rev.
 Stat.
 \$ 46-1658

 Neb.
 Rev.
 Stat.
 \$ 46-1659

 Neb.
 Rev.
 Stat.
 \$ 61-206

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Chapter 11 - CONSULTING BOARD

- $\underline{001}$ When the safety and technical considerations pertaining to an application approval, an approval to operate, or the plans and specifications of a dam require it, or when requested by the owner, the Department shall appoint a Consulting Board of three or more engineers to report to the Department on the safety features involved. The cost and expense of a Consulting Board, if appointed at the request of an owner, shall be paid by the owner.
- <u>002</u> Dam owners interested in having an independent third-party review performed shall submit their request to the Department in writing. The Department will not accept a request for review from anyone other than the owner of a dam. The request must be accompanied by the filing fee and include the following information:
 - $\underline{002.01}$ The purpose of requesting a Consulting Board review.
 - $\underline{002.02}$ The application number or plan number assigned to the project by the Department.
 - $\underline{002.03}$ A statement acknowledging that the dam owner understands that the fees associated with the Consulting Board review are the responsibility of the dam owner and that the dam owner agrees to pay such fees.
 - $\underline{002.04}$ A statement acknowledging that the conclusions and recommendations of the Consulting Board are not binding upon the Department and that the Department maintains the

final authority for the approval of all designs, reports, studies, and other engineering documents.

- $\underline{003}$ Any engineer willing to serve on a Consulting Board may submit their qualifications to the Department.
- $\underline{004}$ The Department shall maintain a list of all engineers willing to serve on a Consulting Board on its website whom the Department has found to be qualified.
- <u>005</u> Upon receipt of a request for a Consulting Board review, the Department shall randomly appoint engineers on the list that are able to serve for the project described. Those appointed cannot have any conflict of interest concerning the project subject to review and shall not have been employed by the dam owner within the last five years.
- 006 Once the board is formed, the Department will schedule a meeting with the dam owner, Department and the Consulting Board. The purpose of the meeting is to discuss the purpose and extent of the review and the time frame for completing the review. The dam owner shall pay to the Board members one-half the probable costs of review prior to the start of the review.
- $\underline{007}$ The Consulting Board's role is to provide an independent review. Therefore, when reviewing plans and specifications of another engineer, the Consulting Board shall send to the Department in writing any questions it has for the design engineer, or shall request the Department to schedule a meeting with the design engineer.
- <u>008</u> The dam owner, the engineer or any agent of the owner are prohibited from contacting or lobbying the Consulting Board except for contact made during meetings scheduled and attended by the Department. Any contact by the dam owner, the engineer or any agent of the owner with a member of the Consulting Board

shall be documented in writing by the board member and provided to the Department.

 $\underline{009}$ The Consulting Board shall compile a final report of its review and submit a copy to the Department and to the dam owner.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1645

Neb. Rev. Stat. § 46-1651 Neb. Rev. Stat. § 61-206

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Chapter 12 - HAZARD POTENTIAL CLASSIFICATION

<u>001</u> All dams shall be classified as high hazard potential, significant hazard potential, low hazard potential, or minimal hazard potential as defined in these rules. The Department will accept only those hazard potential classifications made by an engineer with experience in classifying dam hazard potential.

<u>002</u> Any dam located within three miles of the jurisdictional limits of a city of the metropolitan class or primary class, or any dam within two miles of the jurisdictional limits of a city of the first class, or any dam within one mile of the jurisdictional limits of a city of the second class or a village, shall be classified as high hazard potential unless such dam and hazard classification were previously approved by the Department.

Classification can be mitigated or adjusted if development in the breach route area is sufficiently curtailed due to zoning restrictions, easements, deed restrictions, or other methods of restriction acceptable.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1651 Neb. Rev. Stat. § 61-206

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Chapter 13 - OPERATION AND MAINTENANCE OF A DAM AND RESERVOIR

<u>001</u> <u>Requirement</u>. It is the responsibility of the owner(s) of the dam and reservoir to notify the Department of any changes in responsibility for the maintenance or operation of the dam or reservoir, including who is responsible for any releases from the reservoir. Notification shall be made on a form provided by the Department and include the name, mailing address, electronic address and telephone number of the person or persons responsible for maintaining and operating the dam and reservoir. The owner(s) shall provide a complete description of each person's duties and responsibilities and accurate information about how each person can be contacted. Copies of all contracts or other agreements between the dam owner and the person(s) responsible for operation and/or maintenance of the dam and reservoir shall be submitted with the notification form.

STATUTORY AUTHORITY: Neb. Rev. Stat. § 46-1651 Neb. Rev. Stat. § 61-206